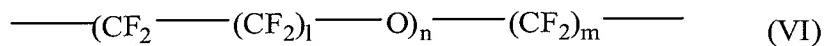
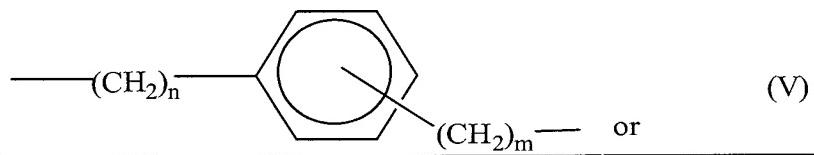
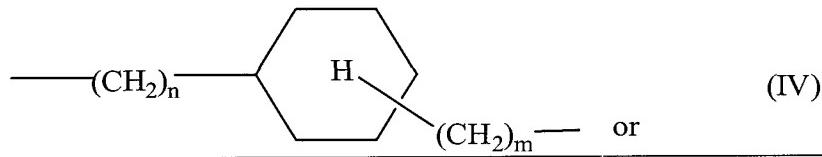


IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): A separator for high power lithium batteries comprising a sheetlike flexible substrate having a multiplicity of openings and having a porous inorganic electrically insulating coating on and in said substrate, said coating closing the openings in the substrate, the material of said substrate being selected from non-woven electrically nonconductive polymeric fibers and said inorganic electrically insulating coating comprising particles, wherein the separator is an electrical insulator and has lithium ion conducting properties without the presence of an electrolyte and wherein the separator comprises at least one lithium ion conducting inorganic material which may also contain organic groups and which lithium ion conducting inorganic material is chemically bonded to the inorganic coating, wherein the lithium ion conducting material is an organosilicon compound of formula $[(R^1O)_3Si-R^2]M^+$, wherein R^1 is methyl or ethyl, M is either H or Li, and R^2 is a bis(perfluoromethylsulfonyl)amide group of formula $-CF_2-SO_2-N-SO_2-CF_3-$; or an organosilicon compound of formula $[(RO)_y(R^4)_z]_aSi-\{R^3-SO_3^-\}_bM^+$ or $[(RO)_y(R^4)_z]_aSi-R^3-PR^5O_2^-M^+$, wherein R^3 is a linear or branched alkylene group having 1 to 12 carbon atoms, a cycloalkyl group having 5 to 8 carbon atoms or a unit of formula



wherein 1, n, and m are respectively each a number from 0 to 12, M is an H⁺ or a lithium ion, y is a number between 1 and 3, z is a number between 0 and 2, y+z=3, a is a number between 1 and 3, b=4-a, R and R⁴ are identical or different and are methyl, ethyl, propyl, butyl or H, and R⁵ is H, OH, OM or R³; or Li₂Zr(O₃P-R-SO₃)₂ or Li₄Zr(O₃P-R-PO₃)₂, wherein R is a perfluorinated, partly fluorinated or nonfluorinated aryl or alkyl chain having 1-12 carbon atoms.

Claim 2 (Original): The separator of claim 1, wherein the particles of the inorganic electrically insulating coating comprise particles of oxides of the elements Al, Zr and/or Si.

Claim 3 (Previously Presented): The separator of claim 1, wherein the at least one lithium ion conducting inorganic material is present as an admixture in the structure of the separator in addition to said coating.

Claim 4 (Currently Amended): The separator of claim 1, wherein said particles are coated with said at least one lithium ion conducting inorganic material which may also contain organic groups.

Claim 5 (Canceled).

Claim 6 (Currently Amended): The separator of claim 1, wherein the inner and/or outer surfaces of the particles present in the separator are coated with a layer of [[a]] the lithium ion conducting inorganic material which may also contain organic groups.

Claim 7 (Original): The separator of claim 6, wherein the layer has a thickness of from 10 to 100 nm.

Claims 8-13 (Canceled).

Claim 14 (Previously Presented): A process for producing a separator having lithium ion conducting properties as claimed in claim 1, comprising making a sheetlike flexible substrate having a multiplicity of openings and having a porous inorganic electrically insulating coating on and in said substrate, the material of said substrate being selected from non-woven electrically non-conductive polymeric fibers, which comprises a sheetlike flexible substrate having a multiplicity of openings being provided with a coating on and in said substrate the material of said substrate being selected from non-woven electrically nonconductive polymeric fibres and said coating being a porous electroinsulating ceramic coating and using a compound having lithium ion conducting properties to produce the separator.

Claim 15 (Original): The process of claim 14, wherein the separator having lithium ion conducting properties is obtained by treating a separator which does not have lithium ion conducting properties with at least one ion conducting material or with at least one material which following a further treatment has ion conducting properties.

Claim 16 (Canceled).

Claim 17 (Previously Presented): The process of claim 14, wherein the treatment of the separator with at least one lithium ion conducting material or at least one material which

following a further treatment has lithium ion conducting properties takes place by impregnating, dipping, spreadcoating, rollercoating, knife coating, spraying or other coating techniques.

Claim 18 (Previously Presented): The process of claim 14, wherein the separator following treatment with at least one lithium ion conducting material or with at least one material which following a further treatment has lithium ion conducting properties is thermally treated.

Claim 19 (Original): The process of claim 18, wherein the thermal treatment is conducted at a temperature of from 50 to 280°C.

Claim 20 (Previously Presented): The process of claim 14, wherein the material used to produce the inorganic porous coating is a material which has lithium ion conducting properties.

Claim 21 (Previously Presented): The process of claim 20, wherein the material used to produce the inorganic porous coating is a material selected from the group consisting of lithium phosphate zirconate glasses, α - and/or γ -lithium zirconium phosphates, zirconium phosphates doped with lithium sulfonates, zirconium phosphates doped with immobilized lithium sulfonates and mixtures thereof.

Claim 22 (Previously Presented): A lithium battery comprising a separator as claimed in claim 1.

Claim 23 (Previously Presented): A lithium battery as claimed in claim 22, wherein the separator is impregnated with an electrolyte.

Claim 24 (Previously Presented): A lithium battery as claimed in claim 23, wherein a solution of LiPF₆, LiBF₄, LiC1O₄, LiAsF₆, LiCF₃SO₃, LiClO₄, lithium bisoxalatoborate (Libob) and/or lithium bis(trifluoromethylsulfonyl)amide (BTA, LiN(SO₂CF₃)₂) in ethylene carbonate (EC), dimethyl carbonate (DC), propylene carbonate (PC), methyl propyl carbonate (PMC), butylene carbonate (BC), diethyl carbonate (DEC), γ -butyrolactone (γ -BL), SOCl₂ and/or SO₂ is used as electrolyte.

Claim 25 (Previously Presented): A battery which comprises a separator as claimed in claim 1.

Claim 26 (New): The separator of claim 1, wherein said at least one lithium ion conducting material comprises the compound of formula [(R¹O)₃Si-R²]M⁺.

Claim 27 (New): The separator of claim 1, wherein said at least one lithium ion conducting material comprises the compound of formula [{(RO)_y(R⁴)_z}_aSi-{R³-SO₃⁻}_b]M⁺.

Claim 28 (New): The separator of claim 1, wherein said at least one lithium ion conducting material comprises the compound of formula [{(RO)_y(R⁴)_z}Si-R³-PR⁵O₂⁻]M⁺.

Claim 29 (New): The separator of claim 1, wherein said at least one lithium ion conducting material comprises the compound of formula Li₂Zr(O₃P-R-SO₃)₂.

Claim 30 (New): The separator of claim 1, wherein said at least one lithium ion conducting material comprises the compound of formula $\text{Li}_4\text{Zr}(\text{O}_3\text{P}-\text{R}-\text{PO}_3)_2$.

Claim 31 (New): The separator of claim 1, wherein said at least one lithium ion conducting material comprises trihydroxysilylpropylsulfonic acid.

Claim 32 (New): The separator of claim 1, wherein said at least one lithium ion conducting material comprises trihydroxysilylpropylphosphonic acid.

Claim 33 (New): The separator of claim 1, wherein said at least one lithium ion conducting material comprises trihydroxysilylperfluorooctylsulfonic acid.